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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,088	10/10/2001	Marie B. Connett-Porceddu	2411-110	4800

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ROTHWELL, FIGG, ERNST & MANBECK, P.C.
1425 K STREET, N.W.
SUITE 800
WASHINGTON, DC 20005

EXAMINER

BAUM, STUART F

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/973,088	Applicant(s) CONNETT-PORCEDDU ET AL.	
	Examiner Stuart F. Baum	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8,9,11-27,29-33,35,36,39,40,42,43,45 and 82-119 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-9, 11-27, 29-33, 35-36, 39-40, 42-43, 45, 82-119 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The amendment filed 10/19/2005 has been entered.
2. Claims 1-6, 8-9, 11-27, 29-33, 35-36, 39-40, 42-43, 45, 82-119 are pending and will be examined in the present office action.

Claims 10, 28, 34, 37-38, 41, 44, 46-81 have been canceled.

Claims 82-119 have been newly added.

3. Rejections and objections not set forth below are withdrawn.
4. The text of those sections of Title 35, U.S. Code not included in this office action can be found in a prior office action.

Claim Objection

5. Claim 2, 3rd line, is objected to for reciting "a liquid culture medium" instead of --the liquid culture medium--.

Claim 4, 4th line, is objected to for reciting "a liquid culture medium" instead of --the liquid culture medium--.

New Matter

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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6. Claims 83-84, 86-87, 89-90, 92-95, 101-102 and 116-119 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims have been amended to recite “wherein the gel medium for transformation comprises a carbohydrate source that is maltose and polyethylene glycol (PEG)”, “wherein the gel medium for transformation comprises 6% maltose and 7% PEG”, “wherein the layer for selection further comprises abscisic acid (ABA)” and “wherein the gel medium for selection further comprises abscisic acid (ABA)”. Applicants contend that Example 6 supplies support for claims 83-84, 86-87, 89-90, 92-93 and 116-117 but the Office contends that no such support could be found in Example 6. In addition, Applicants contend that for claims 118-119, support can be found in Example 5, but the Office contends that no such support could be found. Applicants are required to point to support for the above cited recitations, including page numbers and paragraph numbers, or to amend the claims to delete the NEW MATTER.

Scope of Enablement

7. Claims 1-6, 8-9, 11-27, 29-33, 35 and 36 remain rejected and newly amended or newly presented claims 39-40, 42-43, 45 and 82-119 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method for regenerating transgenic plants of pine of the genus *Pinus* subgenus *Pinus* and method for minimizing damage to transformed cells of pine of the genus *Pinus* subgenus *Pinus* following infection by *Agrobacterium* comprising co-

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cultivating pine cells of the *Pinus* subgenus with *Agrobacterium* for *Agrobacterium* transformation, washing said pine cells subsequent to infection with *Agrobacterium* with culture medium comprising inorganic salts, vitamins, amino acids, inositol, casein hydrolysate, sucrose, and auxin, cytokinin, or abscisic acid or combinations of the hormones, followed by a step to eradicate the *Agrobacterium* using said medium which further comprises an eradicator of *Agrobacterium* and abscisic acid (ABA), followed by a repetition of washing the cells in the above medium and collecting the cells on a support membrane, culturing the cells on a support membrane which is placed over a medium comprising the above constituents and further comprising a selection agent and ABA whereby the transformed cells are selected, growing the selected cells on a support membrane which is placed on a medium comprising said constituents and further comprising ABA wherein the cells develop into somatic embryos and followed by germinating the somatic embryos on medium comprising ABA, does not reasonably provide enablement for claims drawn to said method in which the above medium is not used, or an eradication step is not included, or ABA is not included in any of the steps recited above, or the cells are not washed in a medium comprising the above recited constituents in between the *Agrobacterium* infection step, the *Agrobacterium* eradication step, the selection step, or growing the transformed pine cells into transformed somatic embryo step, wherein the cells or embryos are collected on a support membrane which is placed over medium comprising said constituents. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. This rejection is maintained for the reasons of record set forth in the Official action

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mailed 5/19/2005. Applicant's arguments filed 10/19/2005 have been fully considered but they are not persuasive.

Applicants contend that ABA is not required in the steps of the method, although the use of ABA in certain steps may be preferred, for all members of the subgenus *Pinus* (page 23 of Remarks, 3rd full paragraph). Applicants contend the specification clearly teaches that ABA may be beneficial for certain species of pine of the subgenus *Pinus*. Applicants state "For example, the specification discloses that it is preferred to use ABA in the selection medium for *P. taeda* and certain hybrids as shown in Example 7 and 8" (*Ibid*). Applicants contend ABA is not required for *P. radiata*.

The Office contends that Applicants are broadly claiming a method for regenerating pines in the genus *Pinus*, subgenus *Pinus*. Applicants state "In the transformation of certain species of Southern yellow pines, particularly certain elite lines and hybrids, it is desired to include ABA in some of the media" (page 15 of the specification, paragraph 30). Applicants contend that for *P. taeda* and hybrids, selection is improved because the proliferative health of transformed tissue is increased by using ABA (*Ibid*). Applicants state "...we were able to detect for the first time, solely in treatments containing ABA in the selection media, confirmed transformants from lines that normally show the precocious development and early decline characteristics." (page 16 of the specification, top paragraph). Applicants disclose that for one of the exemplified genera, *P. taeda* line 7-56 and for hybrids in which *P. taeda* line 7-56 is a parent, the addition of ABA is required in the selection media for the production of transformed plants (page 16 of the specification, paragraph 48 and page 51 of the specification, paragraph 129).

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Therefore, the Office contends ABA is a required constituent for Applicants' method for regenerating transgenic plants of pine of the genus *Pinus* subgenus *Pinus*.

35 USC § 103

8. Claims 39-40, 42-43 and 45 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Levee et al (1999, Molecular Breeding 5:429-440) in view of Handley, III et al (February, 1996, U.S. Patent Number 5,491,090). This rejection is maintained for the reasons of record set forth in the Official action mailed 5/19/2005. Applicant's arguments filed 10/19/2005 have been fully considered but they are not persuasive.

Applicants contend that "the Examiner's primary basis for this rejection appears to relate to the lack of definition of the term 'minimizing damage'" (page 25, 1st full paragraph). Applicants contend that they have amended the claim to define said term being consistent with the language found in claim 1.

The Office contends that said definition is merely an intended use and does not recite any positive steps that distinguish Applicants' invention from the prior art. Therefore, the teachings of Levee et al still apply as prior art against the claimed invention.

9. No claims are allowed.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

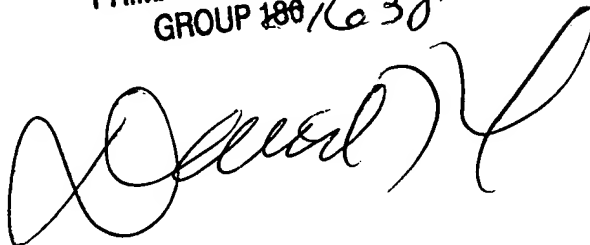
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart F. Baum whose telephone number is 571-272-0792. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

Stuart F. Baum Ph.D.
Patent Examiner
Art Unit 1638
December 12, 2005

DAVID T. FOX
PRIMARY EXAMINER
GROUP 180/1638

A large, stylized handwritten signature in black ink, likely belonging to David T. Fox, is written over the printed name and title.